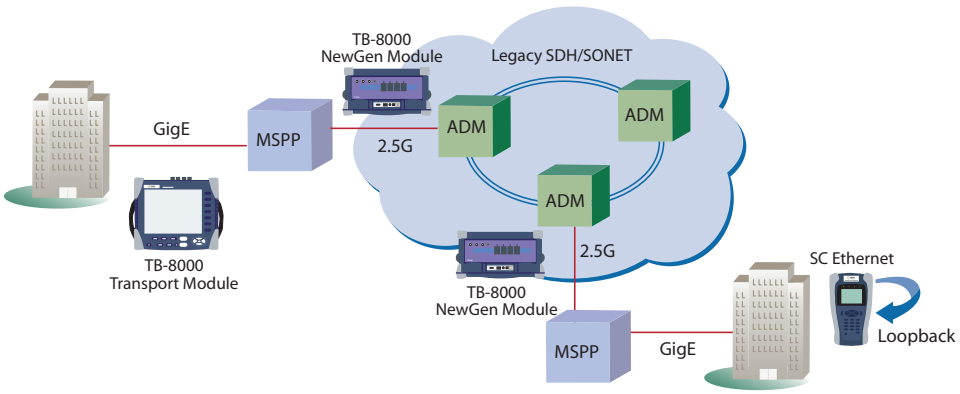
Introducing the JDSU T-BERD 8000

NewGen Module

2007 FROST & SULLIVAN
Global Communications Test & Measurement Company of the Year Award

Ethernet-over-SONET/SDH (EoS), also referred to as new or next generation SONET/SDH ("NewGen") enables operators to cost-effectively deliver Ethernet-based services to business and residential users with maximum reuse of existing infrastructure. The NewGen SONET/SDH Module enhances the JDSU T-BERD 8000 platform with the ability to test Ethernet transported over SONET/SDH networks using VCAT (Virtual Concatenation) and GFP (Generic Framing Procedure). This all-in-one module provides testing capabilities ranging from the SONET/SDH layer down to the analysis of the payload of the transported frames at the Ethernet layer, enabling service providers to efficiently turn-up and troubleshoot Ethernet services throughout the network. In addition, the dynamic increase and/or decrease of bandwidth using link capacity adjustment scheme (LCAS) can be used to test reliable on-demand bandwidth increases or decreases in the EoS network.



Features

- 155M, 622M, 2.5G optical SONET/SDH Interfaces
- Higher Order and Lower Order VCAT (virtual concatenation) structures with up to 1G of Ethernet traffic analysis capability
- GFP-F generation and analysis
- Virtual Concatenation group search utility allows a user to scan the selected physical signal structure to find a dedicated virtual concatenated group for lower order traffic identification
- LCAS generation and analysis, including a protocol tracer for sink and source state machines
- Differential delay analysis for all VCG members
- MAC, VLAN and QinQ generation Ethernet testing
- Support the transmission and analysis of Ethernet connectivity, throughput and QoS testing

JDSU

T-BERD 8000

NewGen Module

COMMUNICATIONS
TEST & MEASUREMENT
SOLUTIONS

Applications

Turning up and Troubleshooting Ethernet over SONET/SDH (EoS) circuits

Ensure Connectivity

- Verify system provisioning by easily identifying Virtually Concatenated groups and members
- Verify the mapping of Ethernet frames into SONET/SDH payloads by checking the GFP layer for errors and alarms
- Transmit Ethernet traffic using the MAC address and VLAN Tag, including stacked VLAN (QinQ) capabilities
- Trace LCAS protocols for the correct setup and teardown of VCAT groups

Verify Throughput

- Ensure throughput by verifying the aggregate EoS bandwidth transported through multiple virtual containers
- Use the Ethernet filter to identify traffic per source and destination MAC address

Measure QoS

- Ensure QoS by measuring the differential delay of EoS circuits transversing different paths through the network
- Monitor for errors and alarms in Virtually Concatenated Groups and Members
- Detect lost Ethernet frames, measure delay and perform BER testing while interoperating with the Transport module

In using the NewGen module, operators will benefit from JDSU's proven technology and testing expertise that has helped many of the world leading equipment manufacturers design and verify their NewGen systems with the ONT platform. JDSU has been able to apply this experience to field applications while leveraging the market leading T-BERD 8000 platform with a common user interface. This powerful combination enables operators to have one platform in support of current and future testing needs.

The Power of One– Performing the Work of Many

Combining multiple test capabilities with unprecedented levels of field modularity and integraton, the JDSU T-BERD 8000 allows integration of one or all of the following modules for provisioning and maintaining short-haul, long-haul, FTTx, Metro, CWDM, and DWDM networks:

Transport module
The only solution available to market that combines T1/E1-10G SONET/SDH, 10/100/Gig Ethernet, 10Gig Ethernet LAN/WAN PHY, IP, Fibre Channel and OTN technologies in one convenient package.

Optical Time Domain Reflectometer (OTDR)
With over 17 different plug-in modules covering all configurations from short-haul to ultra-long haul networks

Chromatic Dispersion (CD)
Based on a single ended method requiring only one technician to perform the test

Polarization Mode Dispersion (PMD)
For qualifying the fiber plant before installing high-speed transmission technologies and avoiding costly service disruptions and/or rework

Wavelength Division Multiplexing (WDM)
For channel testing and measuring spectral attenuation in the C and L bands

OpticalSpectrum Analyzer (OSA)
For high-performance, full-spectrum DWDM analysis with a unique option for 10.7G channel isolation

30149093 000 0407 TB8000NEWGEN.SS.ACC.TM.AE

JDSU

North America
Tel: 1 866 228 3762
Fax: +1 301 353 9216

Latin America
Tel: +55 11 5503 3800
Fax: +55 11 5505 1598

Asia Pacific
Tel: +852 2892 0990
Fax: +852 2892 0770

EMEA
Tel: +49 7121 86 2222
Fax: +49 7121 86 1222

WEBSITE: www.jdsu.com